National Institute of Environmental Health Sciences

Chemical ecology of animal and human pathogen vectors in a changing global climate

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Abstract:

Infectious diseases affecting livestock and human health that involve vector-borne pathogens are a global problem, unrestricted by borders or boundaries, which may be exacerbated by changing global climate. Thus, the availability of effective tools for control of pathogen vectors is of the utmost importance. The aim of this article is to review, selectively, current knowledge of the chemical ecology of pathogen vectors that affect livestock and human health in the developed and developing world, based on key note lectures presented in a symposium on "The Chemical Ecology of Disease Vectors" at the 25th Annual ISCE meeting in Neuchatel, Switzerland. The focus is on the deployment of semiochemicals for monitoring and control strategies, and discusses briefly future directions that such research should proceed along, bearing in mind the environmental challenges associated with climate change that we will face during the 21st century.

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Resource Description

Exposure :

weather or climate related pathway by which climate change affects health

Unspecified Exposure

Geographic Feature:

resource focuses on specific type of geography

None or Unspecified

Geographic Location:

resource focuses on specific location

Global or Unspecified

Health Co-Benefit/Co–Harm (Adaption/Mitigation):

specification of beneficial or harmful impacts to health resulting from efforts to reduce or cope with greenhouse gases

A focus of content

Health Impact: ☑

specification of health effect or disease related to climate change exposure

Infectious Disease

Mitigation/Adaptation: ☑

mitigation or adaptation strategy is a focus of resource

Adaptation

Resource Type: ☑

format or standard characteristic of resource

Review

Timescale: ☑

time period studied

Time Scale Unspecified